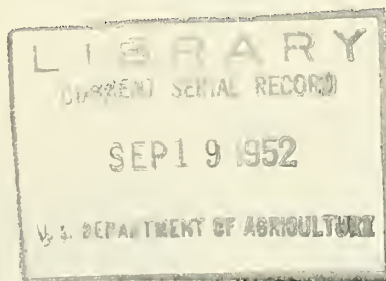


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MARKETING ACTIVITIES



U.S. DEPARTMENT OF AGRICULTURE
Production and Marketing Administration
Washington 25, D.C.

GRAIN ELEVATOR SUCCESS FACTORS

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Do's and Don't's for successful grain elevator construction and operation by two USDA specialists who have studied the business.

LOADING OUT ECONOMIES

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CLEANLINESS IS GOOD, BUT--

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FATS AND OILS STORAGE SURVEYED

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THE GREEN CARD PAYS OFF

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An explanation of a "farm program" that benefits not only producers but practically everyone in the marketing line to the consumer and at the same time is nearly self-supporting.

MARKETING ACTIVITIES

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Grain Elevator Success Factors

By Perry S. Richey and Thew D. Johnson

Factors responsible for the success or failure of country elevators are considered in a report prepared by the Marketing and Facilities Research Branch, Production and Marketing Administration, USDA.

Based on a study of grain elevators in Indiana, which are regarded as typical of such small grain belt facilities, the report is intended for the guidance of individuals planning construction of new elevators and entrance into the field, or for those considering expansion of existing elevator facilities. The report, which covers every phase of elevator operation, deals with such matters as location, efficient size, space required, methods of operation, down to the amount of horsepower required to operate machinery and equipment.

Most Income From Side-Line Sales

The report reveals that most of the elevators studied derived close to two-thirds of their income from side-line merchandising such as selling feed, farm equipment, and fertilizer, while less than a quarter of their annual returns came from grain marketing. A still smaller proportion of income came from custom servicing.

This would indicate that prospective entrants into the grain elevator field can expect tough sledding until they have developed a side-line business, and the report cautions against investment in expensive construction and facilities based on anticipated returns from side-line activities.

Volume Important

The successful country elevator in a diversified grain and livestock producing area must have facilities and equipment to receive and move a large volume of grain to terminal markets in a short time. The ability of an elevator to move large volumes of grain has little direct relation to its storage capacity. A large amount of storage space in country elevators in the Corn Belt is used only for operative storage, with much of it remaining unused during many months of the year.

It was found that intelligent management was the greatest single factor in the successful operation of a country elevator. Good management could even overcome the handicap of mediocre facilities.

The ability of management to determine the needs of farmers in the way of custom services and grain marketing, as well as the ability to sell

these services and items of merchandise to farmers and others in the community, apparently was directly correlated with financial success in the elevators studied.

Before starting an elevator business, the report warns, the probable volume of grain available in the area for marketing, multiplied by the probable margin per unit, balanced against the probable total operating costs, will determine whether or not the business would be a financial success. Elevator structures themselves are designed to handle grain only, and are of little value for any other purpose, it was stressed.

Seven Factors For Location

Consideration of seven important factors is recommended in selecting the elevator site. The site should: (1) Be adjacent to a main line railroad which can give timely and reliable switching service; (2) have adequate power available; (3) be well drained; (4) be convenient to local customers; (5) have plenty of area for expansion; (6) be far enough removed from the center of population so that elevator dust, smoke and noise will not become a nuisance or elevator traffic become a traffic hazard and (7) be easily reached by good all weather roads.

Structures and facilities should be placed so that labor can be most efficiently utilized; grain can be handled with the least amount of power and equipment; customers can be served with the greatest convenience; and, space should be available for free and efficient movement of all traffic connected with every probable phase of elevator operation.

If only grain marketing is to be carried on in the proposed elevator, the volume of grain handled must yield a revenue at least sufficient to pay all anticipated costs of operation, based upon an accurate estimate of anticipated costs by budgetary methods. If it is anticipated that grain marketing, custom services, and sideline merchandising will be carried on, the anticipated income from grain marketing and the income from custom services should total enough revenue at least to pay all elevator costs, with the income from marketing being sufficient to pay at least two-thirds of this cost.

Check Probable Returns Carefully

Anticipated probable or possible revenue from sideline merchandising, even though it may eventually develop the largest returns, cannot safely be used to justify the building of a high-cost structure primarily designed and equipped to market and handle grain, the report emphasized. This is true even though the volume of sideline merchandising done by country elevators has grown to the point where for the years 1947, 1948, and 1949, the income from such merchandising made up 66 percent of the total income of the elevators, custom servicing 11 percent, and grain marketing amounted to only 23 percent.

The facilities in most elevators could have handled and marketed a much greater volume of grain if such grain had been available. The volume of grain marketed usually was not sufficient to pay minimum costs of operation if the elevator had been marketing grain only. The grain-

marketing equipment, as such, was used for that purpose only for the equivalent of about 50 working days annually.

In only one group of elevators was merchandising income less than the income from handling grain and custom services, and in this group the emphasis in operations was put on custom services, the income from which was relatively high. In the group of largest elevators about 80 percent of all income was from sideline merchandising. These elevators had expanded their business in this direction to the point where the grain receiving function was a minor item in their total operations, although they had started years ago as elevators handling grain only.

Types of Merchandising Found Successful

The three most important items handled by a majority of the elevators were coal, bagged feeds, and feed ingredients and seeds, and in 14 elevators these three items constituted major enterprises.

Through years of experience, essentially by trial and error methods, one or more elevators had taken advantage of local opportunities in merchandising such items as fertilizer, farm machinery, lumber and building supplies, brick, tile, poultry supplies and equipment, hardware and farm tools and machinery parts, electric supplies, used farm machinery, paints, petroleum products and tires, insect sprays and equipment, hog houses, and feeders, fencing, and many other items for which there was a local demand.

Failure Factors

The major defects in elevator structures and operations found during the study were: (1) Crowding of structures into too small an area to permit free movement of traffic; (2) the apparent lack of a planned arrangement of structures and equipment for the most efficient use of labor; (3) lack of adequate structural facilities, including display and storage rooms for sideline merchandising; (4) lack of capacity coordination in machinery and equipment for the handling of grain as it moved from the dump pit to railroad car; (5) lack of adequate power; (6) lack of proper safeguards against fire and personal injury.

The volume of grain which an elevator can handle in one day is not regulated by its storage capacity but by the movement capacity of the equipment installed in the elevator structure always assuming that adequate railroad cars and trucks are available for transporting the grain away from the elevator. In general, when constructing a new elevator no storage bins for rent should be incorporated in the elevator structure unless there is firm assurance that such space will return a profit.

A copy of the report, "Factors to be Considered in Determining Location, Layout and Method of Operating Country Elevator Facilities," may be obtained from the Office of Information Services, Production and Marketing Administration, U. S. Department of Agriculture, Washington, 25, D. C. The study on which this report is based was carried on under authority of the Agricultural Marketing Act of 1946. (Title II - RMA)

Loading-Out Economies

By Joseph H. Herrick

Substantial savings are possible in the most costly warehouse handling operation of fresh produce wholesalers--the assembling of orders and the loading of delivery trucks--according to findings in a study made by the Marketing and Facilities Research Branch, Production and Marketing Administration, USDA.

A report on the study, which is part of a broader research project financed under the Agricultural Marketing Act of 1946 (RMA-Title II), cites possible savings as high as 37 percent in "loading out" produce from wholesale warehouses. Still further economies in materials-handling operations in stores and warehouses of wholesale fruit and vegetable distributors are expected to be uncovered by the continuing study.

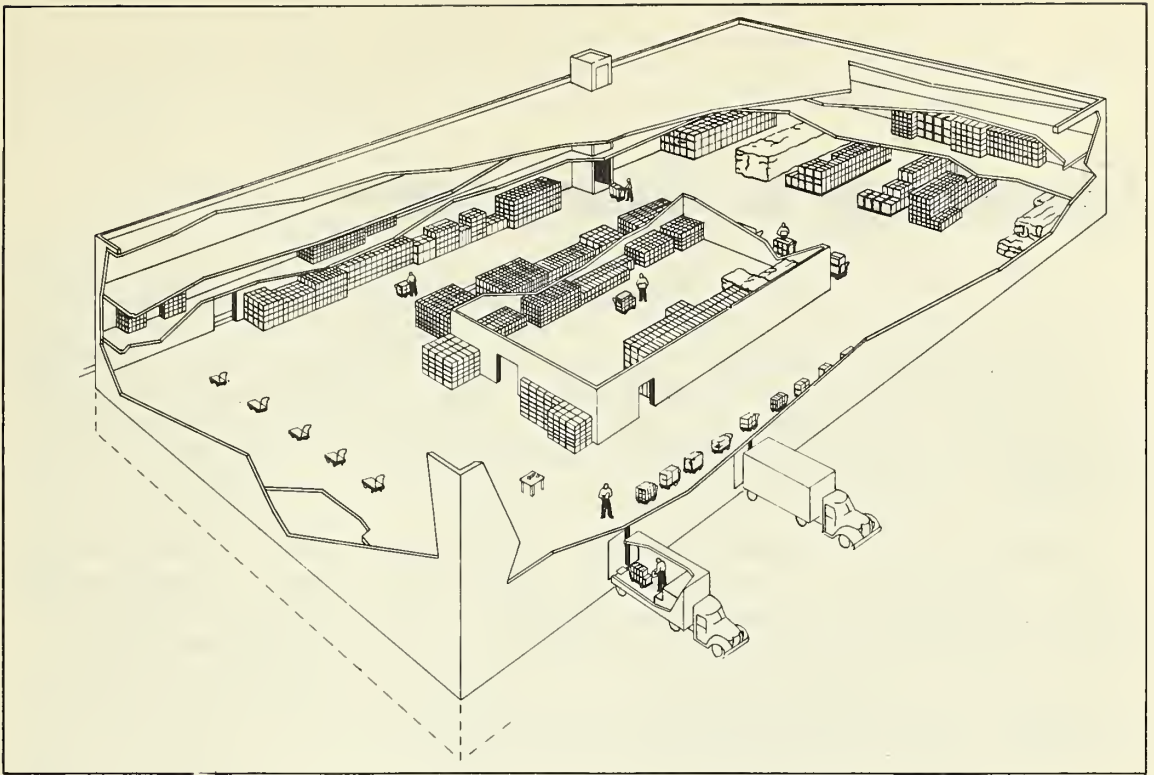
The warehouse operation described as "loading out" covers the cycle from the time produce is moved from storage through loading it onto delivery trucks. Because it is their most costly warehouse operation, wholesalers constantly are seeking better ways of performing this task. A number of different methods of performing the work are in use by the industry.

Six methods, employing different types and combinations of different types of materials handling equipment, were studied. These methods and the direct cost of loading out a ton of produce under them are given in the order of economy found:

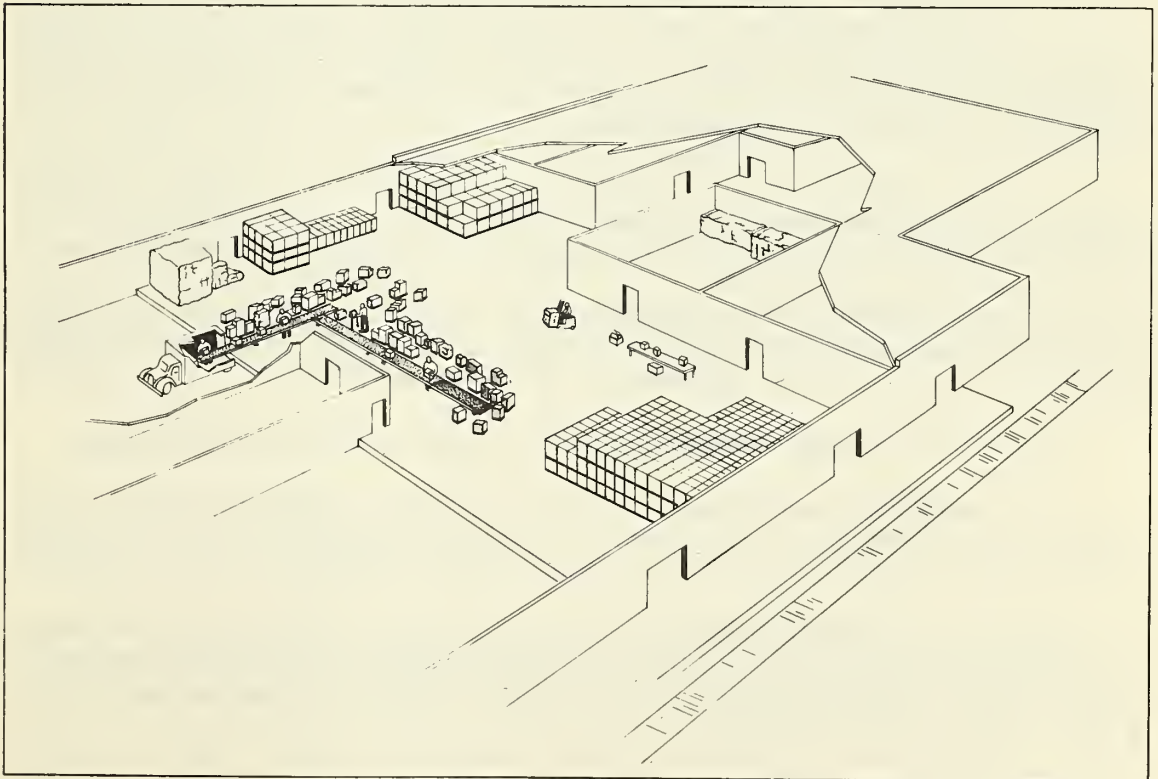
A, four-wheel hand trucks for both assembling and loading, \$1.43 per ton; B, fork-lift trucks and pallets for assembling, and belt conveyors for loading, \$1.50 per ton; C, two-wheel hand trucks, semi-live skids (wheels at one end and jacks for assembling, and belt conveyors for loading, \$1.58 per ton; D, low-lift trucks and dead skids (no wheels) for assembling and belt conveyors for loading, \$2.18 per ton; E, semi-live skids and jacks for assembling, and elevating and horizontal belt conveyors for loading, \$2.20 per ton; and F, four-wheel hand trucks, fork-lift trucks, and pallets for assembling, gravity conveyors and manual loading, \$2.27 per ton.

Costs shown are based on productive man-hours of labor required, using an assumed wage rate of \$1.50 per hour plus equipment costs. Management and facility costs are not included. Therefore costs shown should be used only for comparing relative efficiency of methods. Warehouse layouts for the two most economical loading out methods follow on next page.

Copies of the report, "An analysis of Some Methods of Loading Out Delivery Trucks of Produce Wholesalers", are available.



Layout of a warehouse in which four-wheel hand trucks are used for assembling produce and loading motortrucks.



Layout of a warehouse in which the assembly line method of loading out with belt conveyors is used and fork-lift trucks and pallets are used for assembly operations.

Cleanliness is Good, but--

By Harry E. Goresline and A. William Jasper

To wash or not to wash? This has been an important topic when egg dealers talk about cold storage of dirty eggs. Now, thanks to a cooperative research project by the Production and Marketing Administration, USDA, and the National Egg Products Association, this question has been answered.

Generally, the answer is this: Dirty eggs, after washing or unwashed, should not be stored for any length of time. But, if they must be stored it is better to store them unwashed. The study also delves into the best methods of washing eggs if they are to be cleaned and stored.

Carried out under authority of the Agricultural Marketing Act of 1946 (RMA - Title II), the study developed that:

1. Dirty eggs in the washed or unwashed state showed greater quality decline and loss during storage than did clean eggs.
2. Washed dirty eggs showed greater quality decline during storage than did unwashed dirty eggs. In general, dirty eggs are poor storage risks, even when washed and sanitized under the best conditions. Their greatest value lies in immediate use.
3. The quality of both washed and unwashed dirty eggs declined sharply between the second and fourth month of storage, indicating that it is not practicable to store such eggs for more than two months.
4. Oil processing retarded the rate of quality decline in all eggs, and reduced the amount of loss. Bacteria counts in the oiled eggs were much lower than in those eggs stored as "naturals".

The report reached certain definite conclusions on washing eggs.

In commercial plants many of the egg washing machines were not operated in accordance with the manufacturer's directions. This accounted, in many cases, for the poor performance of the machines.

Eggs to be washed should be handled promptly. Dirty eggs are covered with millions of bacteria, therefore high temperatures, damp packing material, and long-time holding contribute to the contamination of the liquid egg inside the shell.

Pre-soak dirty eggs for a short time, either using a strong water spray or by submerging in water containing a detergent. This softens the

dirt and facilitates its removal. The temperature of the water should be considerably higher than the temperature of the egg thereby causing an expansion of the egg's contents. This will prevent polluted water from getting into the egg.

After soaking, the eggs should be promptly transferred to the washing machine and washed in water as warm or warmer than that used to pre-soak the eggs. If cold water is used or wet dirty eggs are allowed to cool there will be a contraction of the egg contents which will draw contaminated material inside the shell. The study found that an adequate supply of thermostatically controlled hot water was a factor lacking in most plants.

The eggs should be cleaned with a mechanical washing unit that employs a scrubbing or brushing action. This insures adequate removal of dirt from the surface of the egg. If a detergent or detergent-sanitizer is used, it is essential that a periodic check of the concentration be made.

After washing, the eggs should be rinsed, dipped or sprayed with hot water containing a germicidal solution. The temperature of the water should be at least equal to that used in the washing operation. Frequent checks should be made to insure that the sanitizing element is in the proper concentration. The eggs should be rinsed following this sanitizing process.

The cleansed eggs should be thoroughly dried, either in a hot air dryer or by an electric fan, before they are handled or cased.

Eggs should be candled after they are washed. It is impossible to candle dirty eggs properly. All eggs showing signs of being inedible and those of doubtful value should be discarded.

If they are to be marketed, the washed eggs should be moved promptly, in new, dry packing material, with particular attention given to temperature and handling conditions. For frozen or dried egg production, such eggs also should be handled promptly, and by experienced personnel. Eggs with even a slight odor or cloudy appearance should be discarded since they are likely to have a high bacteria count.

A detailed report on the study is being prepared.

* * *

CRANBERRY CROP SEEN ABOVE NORMAL

Thanksgiving and Christmas still are some time in the future but it is nice to know that one of the popular foods of the winter holiday season will be in adequate supply. USDA's forecast of the 1952 cranberry crop indicates a production slightly less than last year, but 18 percent above normal. Larger crops than last year are expected in New Jersey, Wisconsin and Oregon, but smaller production is indicated in Massachusetts and Washington. The 1952 crop is forecast at 908,200 barrels.

Fats and Oils Storage Surveyed

By Donald Jackson and George Kromer

Information that should result in more efficient use of available tank storage for fats and oils, recently has been developed by the U. S. Department of Agriculture. For the first time, a thorough survey has been made of domestic tank storage capacity for these products.

In the study, made by the Fats and Oils Branch, PMA, with assistance of the Bureau of the Census in collecting data, a total tank storage capacity for fats and oils (excluding butter and lard) of 5.4 billion pounds was reported in existence in December 1951. (The assumption that 450 firms not reporting averaged about the same capacity as those reporting gives a total capacity of about 6 billion pounds.) Excluded were tank cars, and, so far as possible, stationary tanks used only in processing. Tanks for storage of petroleum, molasses, miscellaneous chemicals and any other commodities not fats or oils also were excluded except where they are customarily considered available for fats and oils.

Month-end volume of fats and oils in storage, as shown by Bureau of the Census reports for 1950 and 1951, never exceeded 2.6 billion pounds. (An unknown, though minor part of this total is handled and stored in bags, drums, barrels, and other containers, requiring no tank storage.) This does not mean, however, that there is an excess capacity represented by the difference between storage capacity and storage use. Companies must maintain separate tanks for each fat or oil both in the season of heavy production and the rest of the year, though many tanks will not be full.

More than one-half the tank storage capacity reported was at five seaports and one Great Lake port; New York, Houston, Chicago, New Orleans, Los Angeles, and San Francisco, in order of capacity. Nevertheless, about 85 percent of the storage facilities are in the hands of processors or dealers, with the commercial warehousemen a very minor factor in relation to the total.

Of the total storage capacity, 3.2 billion pounds were reported as used for inedible fats and oils only. About 70 percent of the total storage capacity can be heated.

The report should be of value to the fats and oils industry, transportation agencies, and the Government as a yardstick against which situations in specific areas, or at specific times, may be compared. It is based on data from 3,100 replies to questionnaires sent out by the Census Bureau at the request of USDA. Further details on this study are available from Fats and Oils Branch, PMA. (See State storage capacity table on next page)

State and Division	Farms Reporting				Storage Capacity				Capacity That can be Hauled							
	Total No.	Percent	No. to Storage	Percent	Total Pounds (1000)	Percent	No. to Storage	Percent	Total Pounds (1000)	Percent	No. to Storage	Percent				
Maine	11	.36	6	.53	2,122	.04	2,052	.06	370	.02	1,228	.05	1,458	.06	370	.02
New Hampshire	6	.19	3	.15	6,837	.13	6,837	.24	0	-	262	.01	262	.01	0	-
Massachusetts	127	4.09	70	6.19	81,749	1.51	78,518	2.43	3,231	.15	71,656	1.81	71,286	3.11	370	.02
Rhode Island	23	.86	10	2.57	2,257	.04	2,257	.07	116	.01	1,053	.03	953	.04	100	.01
Connecticut	24	.77	13	1.15	2,924	.05	2,331	.07	593	.03	2,610	.07	2,210	.10	400	.03
New York	263	8.46	140	12.38	333,086	6.35	217,301	6.72	115,785	5.31	267,138	6.86	173,636	7.57	93,502	5.95
New Jersey	174	4.24	98	8.28	178,017	3.27	438,084	14.16	259,935	11.95	576,976	14.88	333,932	14.57	245,044	15.35
Pennsylvania	233	7.50	124	8.75	193,197	3.57	153,493	5.09	29,704	1.36	198,106	3.80	128,957	5.65	119,119	1.20
North Atlantic	861	27.71	389	34.35	1,300,889	24.76	920,757	28.77	409,732	18.81	1,071,624	27.51	712,592	31.09	365,935	6.05
Ohio	225	7.24	96	8.49	265,291	4.90	158,721	4.91	106,570	4.89	137,802	2.75	137,684	5.98	96,718	6.05
Indiana	100	3.27	37	3.27	144,277	2.67	87,769	2.71	56,508	2.59	128,552	3.30	78,435	3.34	50,117	3.11
Illinois	219	8.01	95	8.40	413,564	7.64	221,738	6.85	191,826	8.81	321,311	8.26	170,156	7.42	151,155	9.46
Michigan	28	2.93	39	3.95	35,195	.65	33,536	1.04	1,659	.08	23,797	.66	21,531	1.09	866	.05
Wisconsin	57	1.84	22	1.94	34,792	.64	24,042	.74	10,750	.49	26,403	.68	11,861	.78	8,537	.54
East North Central	122	23.21	285	25.55	893,119	16.50	525,806	16.25	367,313	15.86	725,855	18.91	423,187	18.65	307,393	19.21
Minnesota	80	2.58	28	2.48	150,353	2.86	150,908	4.65	9,115	.43	70,872	1.82	61,283	2.82	5,244	.39
Iowa	101	3.25	17	1.50	64,501	1.19	38,062	1.18	26,439	1.21	47,827	1.25	32,210	1.41	15,617	.98
Missouri	84	2.70	32	2.83	46,441	.86	43,054	.92	4,485	.21	35,940	.92	33,843	1.48	2,097	.13
North Dakota	6	.19	0	0	4,970	.09	485	.02	4,485	.470	550	.01	470	.02	80	.01
South Dakota	6	.16	0	0	8,600	.16	9,283	.28	7,366	.46	7,106	.45	8,460	.02	7,246	.45
Nebraska	36	1.16	10	1.22	19,055	.35	1,034	.08	9,972	.17	11,468	.45	8,773	.38	6,695	.45
Kansas	44	1.42	16	1.42	87,513	1.62	69,888	2.16	17,685	.81	77,179	1.09	69,295	3.02	7,781	.49
West North Central	357	11.49	103	9.11	391,433	7.23	312,714	9.67	78,719	3.62	257,512	6.62	209,779	9.15	47,765	1.89
Delaware	17	.55	8	.71	2,711	.05	1,971	.05	1,233	.05	1,233	.05	282	.01	971	.06
Maryland	43	1.38	22	1.94	67,900	1.05	65,964	2.04	1,976	.09	66,300	1.71	66,207	2.84	1,093	.07
Virginia	40	1.29	13	1.15	64,325	1.19	5,554	.17	58,771	2.70	60,820	1.56	3,585	.16	57,235	.358
District of Columbia	2	.07	2	.08	0	0	0	0	0	0	0	0	0	0	0	0
West Virginia	17	.55	10	.88	17,463	.32	17,463	.54	0	0	0	0	0	0	0	0
North Carolina	56	1.80	14	1.24	43,185	.80	5,618	.18	37,567	1.72	24,539	.62	2,506	.11	21,933	1.37
South Carolina	35	1.24	26	2.13	27,704	.51	4,905	.15	22,799	1.05	17,740	.52	2,405	.11	17,335	1.11
Georgia	27	2.80	25	2.21	175,913	3.85	28,420	.88	147,493	6.77	149,966	3.95	20,313	.89	128,683	8.11
Florida	84	.77	12	1.06	28,475	.53	7,509	.23	20,966	.96	12,350	.32	1,429	.06	10,921	.69
South Atlantic	321	10.33	115	10.17	427,467	7.90	137,723	4.21	290,505	13.31	282,259	8.80	102,713	12.72	239,516	21.99
Kentucky	27	.87	9	.80	13,457	.40	36,414	.21	35,414	1.57	34,797	1.06	4,046	.18	34,751	2.17
Tennessee	58	1.87	19	1.68	28,618	3.84	8,026	.25	199,582	9.17	106,830	2.75	4,733	.21	102,097	6.39
Alabama	39	1.26	11	.97	207,471	1.42	15,763	.49	12,708	.58	1,975	.05	1,555	.07	1,420	.03
Mississippi	42	1.32	2	.18	57,093	1.97	15,192	.47	42,901	1.92	7,880	.20	3,405	.15	4,277	.27
Arkansas	42	.35	4	.35	18,440	.34	14	.758	18,426	.93	2,924	.08	14	-	2,910	.18
Louisiana	42	1.75	8	.71	326,505	6.03	245,146	7.58	81,459	3.74	278,765	7.16	207,765	9.06	70,715	4.45
Oklahoma	41	1.32	13	1.15	32,372	.60	6,706	.20	25,766	1.18	17,560	.44	10,732	.16	15,802	.86
Texas	195	5.95	114	3.62	886,295	16.37	607,148	18.78	278,515	12.79	55,521	10.42	246,198	10.73	15,802	9.97
South Central	457	14.71	107	9.45	1,600,001	29.36	905,218	27.98	691,783	31.90	859,295	22.10	471,282	20.55	388,333	21.30
Montana	5	.25	3	.27	2,101	.04	2,101	.02	180	.01	850	.02	670	.03	0	-
Idaho	5	.16	1	.09	850	.02	670	.38	2,110	.01	12,999	.34	10,659	.47	130	.01
Colorado	30	.97	10	.88	14,340	.27	12,200	.01	1,056	.05	550	.03	211	.01	336	.02
New Mexico	5	.16	3	.09	1,770	.02	214	.01	1,556	.22	1,346	.04	818	.04	531	.03
Utah	12	.32	5	.44	6,115	.11	1,268	.06	4,847	.04	1,710	.04	1,705	.07	5	-
Arizona	10	.32	5	.44	1,938	.04	1,933	.259	771	.04	82,117	2.13	82,480	3.60	437	.02
Washington	49	1.57	17	1.50	84,691	1.56	83,920	.91	1,004	.05	5,982	.16	5,982	.46	437	.02
Oregon	29	.96	17	.88	7,790	.14	6,786	.21	1,004	.05	5,982	.16	5,982	.46	130	.01
California	282	7.17	70	6.19	636,606	11.76	311,021	9.61	325,585	15.41	12,976	15.91	260,922	11.38	252,054	15.78
Western States	372	11.96	120	10.61	755,701	13.96	420,113	12.99	335,588	15.41	619,933	15.91	384,280	15.89	255,613	16.00
All Other States	6	.21	2	.18	1,144	.03	1,074	.03	30	.04	1,070	.03	1,070	.05	30	.02
Unknown	11	.35	6	.53	3,192	.06	2,180	.07	1,302	.06	2,430	.06	2,180	.10	250	.02
United States	3,107	100%	1,131	100%	5,413,005	100%	3,235,035	100%	2,177,970	100%	3,890,353	100%	2,892,520	100%	1,597,833	100%

New San Antonio Market



Aerial view of the new San Antonio wholesale produce market which was completed and opened for business in September 1951. The new facility was constructed on a 35-acre site on South Zarzamora Street, 5 blocks south of U. S. Highway 90, by the San Antonio Produce Terminal Market Corporation at a cost of approximately 2.5 million dollars.

Among the facilities on the new market are two store buildings containing a total of 84 units for wholesale produce dealers, 120 stalls under sheds for farmers, covered stalls for truckers and buyers, team tracks and house tracks with a total capacity of 100 cars, paved streets and parking areas, an office building containing 40 offices and space for a restaurant and other concessions, and a service station. The Production and Marketing Administration's Marketing and Facilities Research Branch conducted the study which provided a basis for the development of market plans and assisted in other ways in making possible the construction of the new facility.

The Green Card Pays Off

By Ronald E. Betts

The free classification of cotton and the market news service provided by the Smith-Doxey Act might be called a three-way program. It aids producers. It benefits everybody in the marketing channel all the way to ultimate consumers. And--it is self-supporting to a considerable extent.

The Smith-Doxey Act was passed in 1937 to make it possible for groups of farmers, organized to promote the improvement of cotton, to receive from the U. S. Department of Agriculture free classification of their cotton and a companion market news service. In the first year of operation, 1938, a total of 84,000 bales was classed, less than 1 percent of the 1938 crop. In 1951, however, 9,844,000 bales were classed under the act--about 65 percent of the cotton produced that year.

Although the primary purpose of the program is to assist producers in obtaining a price in line with prevailing market conditions, the benefits of the program have extended to all segments of the cotton industry. The Smith-Doxey classification has been accepted as a trading basis in much of the Cotton Belt. Where it is used, it has eliminated the expense of a separate sampling and classification every time a bale of cotton changes hands, and has resulted in the marketing of bales in better condition. All this has cut marketing charges, a boon to both producers and consumers. At the same time, returns to the Government from sale or use of the cotton submitted as samples for classification purposes are estimated to cover about 75 percent of the costs of the program.

There may be some question why cotton farmers need these Smith-Doxey Act services. Here are some reasons: In the first place, cotton classing requires the services of trained experts. Furthermore, the Department's report on quality of the 1951 cotton crop showed over 400 specified qualities, each with a different market value. Based on average prices of the 10 spot markets during the year, these quality values ranged from a low of \$114.00 for a 500-pound bale of Low Middling Tinged 13/16" to about \$271.00 a bale for Good Middling 1 $\frac{1}{4}$ ", or a difference of about \$157.00 a bale. Also there was a difference between the average value of a bale of Strict Low Middling 1 1/32" and a bale of Middling 1 1/16" of 2.28 cents per pound or \$11.40 per bale. It is not unusual for a difference of one grade, or one staple length, or both, to occur in the classification of a sample, particularly among unqualified or inexperienced cotton classers. Thus, it is evident that if cotton farmers are to be in a position to intelligently bargain in the marketing of their cotton, both quality as well as price information, are necessary.

Prior to passage of the Smith-Doxey Act and the operation of the Department's cotton loan program on individual bale quality values, most cotton farmers sold their cotton without knowledge of its quality and, therefore, its value. In many markets, cotton was sold on a "hog-round" basis. In other words, buyers frequently paid the same prices for all cotton purchased during the day. Producers of higher grades and longer staple cotton under this system were penalized, whereas producers of lower grade and short staple cotton, in effect, were given a premium. Such a system gave little incentive to quality production, but promoted a tendency toward inefficient production and marketing. The Smith-Doxey program has helped correct this situation.

To obtain Smith-Doxey Act services farmers must organize a cotton improvement group; elect officers; select a single variety of cotton, some of which must be planted by each member of the group; and apply for the services prior to an annual deadline established by the Department for their area. When the services are furnished, the producers must make arrangements to bond a sampler and agree to abide by the Department's regulations covering sampling under the act.

Most such groups are organized around cotton gins, although some have been set up around warehouses where the warehousemen act as sampling agents. During recent years the varieties planted within an area have become so standardized that many of the groups are now county-wide.

When a group has been set up and is operating, samples taken from each bale of cotton by the group's bonded sampler are sent to an official USDA classification office. The samples are mailed postage free in sacks furnished by the Department. Each sample weighs approximately six ounces, composed of three-ounce portions from each side of the bale. The sampler places a Form 1 "green card" bearing the producer's name and address between the two halves of the sample. The cotton classification office grades the sample, stamps the grade and staple length on the "green card", and returns the card to the producer. The samples become the property of the Government after the classification.

To provide for this service, as well as for other department programs, 31 cotton classing offices have been established throughout the Cotton Belt. While the principal function of most of these offices is to class these samples for organized groups, they also do other classing and inspection work. These offices are carefully located so that samples mailed from almost anywhere in the Cotton Belt one afternoon or evening will be at a classing office by or before noon the next day. When samples are received they are classed as rapidly as possible by expert classers who are under constant supervision. Grade and staple length is stamped on the "green card" accompanying the sample and the card is usually mailed the same day either to the producer or his designated sampling agent. Ordinarily, producers should receive their cards the second day after the sample is submitted.

In the news service furnished under the Smith-Doxey Act, the Department issues weekly market reports showing prices of various qualities of cotton currently being marketed in a particular area. These are sent

to group representatives, sampling agents, and, where requested, to individual members of cotton improvement groups. The reports include an example of how the market report may be used in arriving at the value of the various qualities of cotton for which farmers may have green classification cards. Many ginners and sampling agents post the market news reports for use of their patrons.

The program does much more than just provide farmers with a classification of the quality of their cotton and the market news information for selling it. Among these other uses are the following:

1. A producer may use the "green card" in placing his cotton in the Commodity Credit Corporation loan program without a charge being made for classification for loan purposes.

2. A farmer may use the information obtained from the quality data to select varieties of cotton for planting best suited to his particular area and growing conditions.

3. The program can be used to determine the type of cultural practices and harvesting methods which will result in the highest net return to a grower.

4. It provides both farmers and ginners with information as to the quality of the ginning being performed by the ginner and in at least one State, North Carolina, this information has been used effectively to reduce the percentage of rough ginning preparation from over 20 percent to well under 5 percent in a short period of years.

5. It provides farmers not only with quality information for use in bargaining in the sale of their cotton on the basis of its market value, but is used in deciding whether to sell at current prices, hold for higher prices, or place the cotton in the loan program.

6. In many areas the "green card" is now accepted and used in many ways such as by landlords in settling with their tenants, and by ginners, buyers, and merchants in purchasing cotton from producers without additional classing or sampling. A substantial volume of cotton is "taken-up" by cotton merchants directly from the producer on the basis of the quality shown on the "green card" and without additional sampling. This has lowered marketing costs by eliminating inspection and sampling of the cotton prior to acceptance by the merchant.

7. Information indicates that a considerable volume of cotton is now purchased by mills directly from producers or merchants on the basis of the "green cards." Such purchases tend to reduce the cost of marketing by reducing duplicate sampling, thus resulting in a more efficient marketing system. It is reasonable to assume that any reductions in marketing costs brought about by the Smith-Doxey services should tend to be reflected through the marketing line to both producers and consumers.

Since its inception, farmer participation in the Smith-Doxey program has shown a phenomenal growth as indicated by the following table:

CROP OF	PRODUCTION	SAMPLES	PERCENT CLASSSED	BALES PLACED IN LOAN PROGRAM
	1,000 bales	1,000 bales		1,000 bales
1938	11,623	84	0.7	4,482
1939	11,481	265	2.3	30
1940	12,298	1,531	12.4	3,180
1941	10,495	2,520	24.0	2,221
1942	12,438	3,567	28.7	3,143
1943	11,129	3,337	30.0	3,592
1944	11,839	4,037	34.1	2,122
1945	8,813	2,888	32.8	216
1946	8,517	2,574	30.2	145
1947	11,557	4,300	37.2	280
1948	14,580	8,067	55.3	5,272
1949	15,909	10,456	65.1	3,190
1950 <u>1/</u>	9,908	5,215	52.6	8
1951	15,072	9,844	65.3	1,115

1/ The very small crop this year resulted in high prices which limited to some extent the demand for the Smith-Doxey and for the loan programs.

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BETTER GRASS AND LEGUME SEEDS

More accurate determination of the content of noxious weed seeds in grass and small legume seeds is expected to result from recently completed tests of the germination of buckhorn plantain seeds of different colors and conditions, PMA and Iowa State College researchers report under an RMA project at Iowa State.

Buckhorn plantain seeds are a major problem affecting roughly 400 million to 500 million pounds of grass and small legume seed produced annually in the United States. Seed laws of 32 States list plantain as a noxious weed. Seed analysts have a problem determining which plantain seeds are alive and which are not.

The Iowa study shows that brown plantain seeds will germinate, whether they are shriveled or not, whereas black seeds will not germinate. Shriveled and blackened seeds are classified as inert matter in the present standards, and not as weed seeds. The germination tests indicate, however, that shriveled brown seeds will grow, whereas plump, unshriveled black seeds will not.

The conclusion was reached that, in seed analyses, shriveled or non-shriveled brown seeds of buckhorn plantain should be classified as weed seeds, but that black seeds, even though plump, should be classified as inert matter.

Marketing Briefs

(The program announcements summarized below are more completely covered in press releases which may be obtained on request from the Office of Information, U. S. Department of Agriculture, Washington 25, D. C. by citing the code number given at the end of each item.)

Cotton.--Revision of the Official Cotton Standards for Grades of American Upland COTTON, also referred to as the "Universal Standards for American COTTON," has been announced to be effective August 15, 1953. Under the law changes in the standards have to be announced at least a year in advance. (USDA 1777-52)... Price support rates for 1952 crop Upland COTTON, with an average of 30.91 cents per pound (90 percent of parity) for Middling 7/8 inch, gross weight, has been announced. The comparable support price last year was 30.46 cents per pound. (USDA 1634-52)... A revised system of COTTONSEED grading under which linters will be used as an optional factor in determining grades became effective August 1, 1952. (USDA 1688-52)

Dairy.--The following actions have been taken on Federal milk marketing orders during the past month: Minneapolis-St. Paul, increase in Class I milk price differential approved (USDA 1787-52); Stark County, Ohio, milk marketing order recommended which also would cover adjoining areas in Mahoning, Columbiana, and Wayne Counties (USDA 1605-52); Five New England milk marketing orders (Boston, Lowell-Lawrence, Fall River, Springfield, and Worcester) have been approved for pricing provision changes (USDA 1713-52); Detroit, minor modifications in pricing and payment provisions recommended (USDA 1783-52); Milwaukee, minor changes in transfer provisions approved (USDA 1785-52); Chicago, several changes in "surplus milk manufacturing area," pool plant and other provisions approved (USDA 1786-52); Puget Sound, Wash., several changes relating to producer payment plan, location adjustments, marketing area, and milk classification recommended (USDA 1576-52); Omaha-Council Bluffs, changes in pricing, classification and marketing area provisions become effective September 1, 1952 (USDA 1771-52); Fort Smith, Ark., area, milk marketing order issued to become effective September 1, 1952 (USDA 1615-52); Wendell M. Costello, milk market administrator in Tulsa and Muskogee, Okla., will take over the same duties in Ft. Smith (USDA 1701-52)

Fats and Oils.--Since the August parity price is unchanged as compared with that level at the time the program was announced in March, the support level for 1952-crop PEANUTS will remain at a national average of \$239.40 per ton. (USDA 1686-52)... USDA has completed contracts for purchase of 17 grain storage structures for use in the PEANUT producing areas of Texas and Oklahoma so that farmers there can participate in the 1952 price support program. (USDA 1807-52)

Fruits and Vegetables.--Winter vegetable acreage goals totaling 247,030 acres for 1953, about 2 percent above 1952, have been announced. Compared with last winter increases are recommended for lima beans, beets,

cabbage, carrots, cauliflower, kale and lettuce; reductions for snap beans, celery, escarole, green peppers, shallots and tomatoes; and no change for spinach. (USDA 1591-52)... USDA has offered to buy for the National School Lunch Program Canned Green Snap Beans and Canned Green Peas (USDA 1628-52); Canned Tomato Paste and Tomato Puree (USDA 1801-52) Canned Tomatoes (USDA 1741-52); and Canned Peaches (USDA 1657-52). Plans to purchase fresh Bartlett Pears were announced. (USDA 1586-52). Offers were accepted for 469,755 cases of Canned Red Cherries, completing the purchase program for that fruit. (USDA 1602-52)...The following actions have been taken on U. S. Standards: Revisions, Canned Plums (USDA 1551-52), Persian (Tahiti) Limes (USDA 1642-52), Frozen Whole Kernel Corn (USDA 1641-52), Canned Cream Style and Whole Kernel Corn (USDA 1623-52); Standards proposed for: Florida ORANGES (USDA 1557-52); Florida Tangerines (USDA 1626-52); Shelled Pecans (USDA 1683-52). New standards have been announced for Florida Grapefruit (USDA 1782-52) and revised standards have been proposed for Shelled Almonds (USDA 1773-52). The following actions have been taken under marketing agreement programs: HOPS, USDA has proposed that the salable quantity of 1952 crop HOPS grown in Oregon, California, Washington, and Idaho be fixed at 39,200,000 pounds. (USDA 1691-52). Earlier an amended marketing order was announced for the hop growing area (USDA 1544-52). ALMONDS, USDA proposes to fix the salable percentage of this year's crop at 85 percent (USDA 1758-52). California TOKAY GRAPES, an amended marketing agreement and order for this crop has been issued. (USDA 1772-52). An advisory committee has been named under the Florida ORANGE, GRAPEFRUIT and TANGERINE marketing agreement (USDA 1583-52). Members and alternates have been named to the New England Irish POTATO marketing agreement committee. (USDA 1651-52)

Grains, Feed, and Seeds.--Production Goals for 1953 for WHEAT, other fall seeded grains and FLAXSEED. (USDA 1542-52)...During the year ended July 1, 1952, U. S. grain exports totaled 664 million bushels, 53 million bushels above the same previous period. (USDA 1636-52)...Through June 30, farmers placed 26,262,776 bushels of 1951-crop CORN under CCC price support (USDA 1655-52)... Final price support rates for 1952-crop ROUGH RICE based on a national average of \$5.04 per cwt. have been announced. (USDA 1652-52)... Requirements of the Federal Seed Act with respect to labeling new-crop Kentucky BLUEGRASS seed for germination have been suspended during the period August 30-October 15, 1952 to facilitate movement. (USDA 1631-52)... Purchase agreements to support prices of TALL FESCUE seed from the 1952 crop at a basic rate of 27 cents per pound for certified and 20 cents for uncertified seed has been announced. (USDA 1673-52)... Production Goals for cover crop seeds in 1953 have been announced (USDA 1739-52)... Grassland Goals to be established (USDA 1717-52)

Livestock.--Revisions in regulations issued under the Packers and Stockyards Act will be considered at hearings to be held during the period September 8 through 19 in major livestock marketing areas. (USDA 1799-52)... New Grade Standards for slaughter hogs and hog carcasses have been announced. (USDA 1753-52)... State of Emergency declared by Secretary of Agriculture because of swine disease in 16 States. (USDA 1687-52)... Normal number of imports of cattle expected from Mexico. (USDA 1699-52)

ABOUT MARKETING

The following addresses and publications, issued recently, may be obtained upon request. To order, check on this page the publications desired, detach and mail to the Production and Marketing Administration, U. S. Department of Agriculture, Washington 25, D. C.

Publications:

Some Improved Methods of Handling Groceries in Self-Service Retail Food Stores, Marketing Research Report No. 7. May 1952. 118 pp. PMA (Printed)

How Some Wholesale Grocers Build Better Retailers, Marketing Research Report No. 12. May 1952. 53 pp. PMA in cooperation with Nat'l. American Wholesale Grocers' Association. (Printed)

Methods of Handling and Delivering Orders Used by Some Leading Wholesale Grocers, Marketing Research Report No. 13. May 1952. 50 pp. PMA (Printed)

Seven Ways to Greater Egg Profit, Leaflet No. 327, May 1952. 8 pp. PMA (Printed)

Interior Quality of Eggs (Recommended standards for scoring the quality of broken-out eggs), Poster. Revised June 1952. PMA

Performance of Selected Commercial Varieties of Cotton When Processed at Varying Rates of Card Production. March 1952. 56 pp. PMA (Printed)

The Wholesale Produce Market at Toledo, Ohio. June 1952. 67 pp. PMA in cooperation with University of Toledo. (Processed)

Early Development of Milk Marketing Plans in the Kansas City, Mo. Area, Marketing Research Report No. 14. May 1952 (Printed)

An Analysis of Some Methods of Loading Out Delivery Trucks of Produce Wholesalers, Marketing Research Report No. 15. May 1952. 39 pp. PMA (Processed)

Relation of Rate of Carding and Factors of Cotton Quality to Strength and Appearance of Carded Yarn, Neps in Card Web, and Percentage of Card Waste. June 1952. 44 pp. PMA (Processed)

Tung Processing and Marketing Practices and Costs, Marketing Research Report No. 10. June 1952. 33 pp. PMA (Printed)

Farmers' Produce Markets in the U.S., Part III, Shipping Point Fruit and Vegetable Markets, Marketing Research Report No. 17. May 1952. 72 pp. PMA (Printed)

Planning A Wholesale Frozen Food Distribution Plant, Marketing Research Report No. 18. June 1952. 61 pp. PMA (Printed)

ABOUT MARKETING (Continued)

Factors to be considered in Locating, Planning, and Operating Country Elevators, Marketing Research Report No. 23. June 1952. 94 pp. PMA (Printed)

Compilation of Agricultural Marketing Agreement Act of 1937. 1952. 27 pp. PMA (Printed)

U. S. Standards for Grades of Canned Whole Kernel (Or Whole Grain) Corn. July 30, 1952. 11 pp. PMA (Processed)

U.S. Standards for Grades of Canned Cream Style Corn. July 30, 1952. 10 pp. (PMA (Processed)

U. S. Standards for Grades of Frozen Whole Kernel (Or Whole Grain) Corn. Aug. 1, 1952. 9 pp. PMA (Processed)

U. S. Standards for Grades of Frozen Leafy Greens (Other than Spinach). June 13, 1952. 8 pp. PMA (Processed)

U. S. Standards for Grades of Frozen Apples. June 3, 1952. 8 pp. PMA (Processed)

U. S. Standards for Winter Pears such as Anjou, Bosc, Winter Nelis, Comice, and other similar varieties. Amended July 24, 1952. PMA (Processed)

U. S. Standards, Grades, and Weight Classes for Shell Eggs. July 1, 1952. 5 pp. PMA (Printed)

U. S. Standards for Peaches. June 15, 1952. 7 pp. PMA (Processed)

U. S. Standards for Table Grapes (European or Vinifera Type). July 8, 1952. 11 pp. PMA (Processed)

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